Scoping Summary Report for the Site-Wide Environmental Impact Statement Oak Ridge Y-12 Plant

Department of Energy
Oak Ridge Operations
Oak Ridge, Tennessee

July 1999

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For
The Site-Wide Environmental Impact Statement
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1. Introduction

1.1 Purpose and Organization of the Report

The U.S. Department of Energy (DOE) is evaluating alternatives in the Site-Wide Environmental Impact Statement for the Oak Ridge Y-12 Plant (Y-12) that addresses current levels of Y-12 operations and foreseeable new operations and facilities for approximately the next ten years. This comment summary report summarizes comments and issues identified during the public scoping process and indicates the general approach for addressing issues in the Y-12 SWEIS.

Section 1 describes the project background and scope of the Y-12 SWEIS, the alternatives being evaluated in the SWEIS, and related National Environmental policy Act (NEPA) reviews. Section 2 summarizes the major issues identified during the public scoping process for the Y-12 SWEIS and describes a general approach for what will be addressed in the SWEIS. Appendix A contains comment summaries compiled by DOE based on the comments received during the scoping process for the Y-12 SWEIS.

On July 9, 1996, DOE published a final rule in the *Federal Register* that, among other things, eliminated the requirement to prepare an Implementation Plan [formerly in Section 1021.312 of DOE NEPA regulations at 10 Code of Federal Regulations (CFR) Part 1021]. This change was made to simplify the DOE NEPA process, reduce cost and save time. The elimination of the Implementation Plan does not, however, relinquish the requirement to consider public scoping comments received during the public scoping process into issue areas to discuss what issues will be addressed in the SWEIS. Preparation of this report fulfills DOE's commitment, made during SWEIS scoping process, to inform the public of the outcome of that process.

1.2 Background

The DOE is the federal agency responsible for providing the nation with nuclear weapons and ensuring that those weapons remain safe and reliable. As one of the DOE major production facilities, Y-12 has been DOE's primary site for enriched uranium processing and storage, and one of the primary manufacturing facilities for maintaining the U.S. nuclear weapons stockpile.

Non-defense-related activities at the Y-12 Plant include environmental monitoring, remediation, and deactivation and decontamination activities of the Environmental Management Program; management of waste materials from past and current operations; research activities operated by the Oak Ridge National Laboratory (ORNL); support of other federal agencies through the Work-for-Others Program; and the transfer of highly specialized technologies to support the capabilities of the U.S. industrial base.

In order to meet the challenges of the post-Cold War era, DOE has prepared several Programmatic Environmental Impact Statements (PEISs). The Stockpile Stewardship and

Management PEIS (SSM PEIS, DOE/EIS-0236), which was completed in September 1996, evaluated alternatives for maintaining the safety and reliability of the nuclear weapons stockpile without underground nuclear testing or production of new-design weapons. The Storage and Disposition of Weapons-Usable Fissile Materials PEIS (S&D PEIS, DOE/EIS-0229), which was completed in December 1996, evaluated alternatives for the long-term storage of fissile material, and the disposition of surplus fissile material.

In the SSM PEIS Record of Decision (ROD), DOE decided to maintain the national security missions at Y-12, but to downsize the plant consistent with reduced requirements. In the S&D PEIS ROD, DOE decided that Y-12 would also store surplus enriched uranium pending disposition. As described in Section 1.3 "Alternatives" of this report, DOE is proposing several different approaches to carrying out these missions.

1.3 Alternatives to be Evaluated in the Y-12 SWEIS

DOE proposes to continue to provide the capability and capacity to maintain the nation's stockpile, in support of the U.S. Nuclear Weapons Program. Further, DOE proposes to continue the processing and storage of enriched and depleted uranium, lithium compounds, and other materials; and the manufacturing and assembly/disassembly mission assigned to the Y-12 Plant in the safest and most efficient manner practicable.

As described below, DOE will analyze the No Action Alternative required by NEPA and three broad alternatives involving upgrades of existing facilities, construction of new facilities, and a combination of these two approaches. As a component of each alternative (excluding the "no action" alternative), DOE will analyze the potential impacts of designing, constructing, and operating a new Enriched Uranium Materials Facility.

Under the Upgrade alternative, DOE would implement extensive upgrade/retrofit of existing processes and facilities, such as: enriched uranium manufacturing, depleted uranium manufacturing, lithium manufacturing, assembly/disassembly, general manufacturing, office facilities, and other support facilities.

Under the New Construction alternative, DOE would implement the replacing of existing processes and facilities with newly designed and constructed processes and facilities, such as: enriched uranium manufacturing, depleted uranium manufacturing, lithium manufacturing, assembly/disassembly, general manufacturing, office facilities, and other support facilities.

Under the Upgrade/New Construction alternative, DOE would implement a combination of extensive upgrades to certain existing processes and facilities and the design and construction of certain new processes and facilities such as: enriched uranium manufacturing, depleted uranium manufacturing, lithium manufacturing, assembly/disassembly, general manufacturing, office facilities, and other support facilities.

The No Action alternative would continue current facility operation throughout Y-12 in support of assigned missions. As specified in the SSM PEIS and the S&D PEIS, these

operations would continue in a reduced footprint of consolidated operations. The transitioning of surplus facilities into the Environmental Management Program and limited upgrades of some existing facilities are included in the No Action Alternative.

1.4 Related NEPA Reviews

The continued operation of the Y-12 Plant and the preparation of the SWEIS would be coordinated with potential or planned/ongoing DOE projects and programs. Also, unrelated actions proposed for the Oak Ridge Reservation (ORR) and in the surrounding area could have impacts at Y-12. These impacts will be addressed in the cumulative impact assessment. The following discussion provides a brief summary of the NEPA documents planned or issued to date for such actions or programs.

Programmatic NEPA Reviews

Stockpile Stewardship and Management PEIS (DOE/EIS-0236). A ROD was issued on December 19, 1996 (61 FR 68014, December 26,1996). As identified in the ROD, DOE decided to maintain, but downsize the weapons secondary and case component fabrication capability at Y-12.

Storage and Disposition of Weapons-Usable Fissile Materials PEIS (DOE/EIS-0229). A ROD was issued on January 14, 1997 (62 FR 3014, January 21, 1997). In the ROD, DOE decided that Oak Ridge, in particular Y-12, would continue to store non-surplus highly enriched uranium and surplus highly enriched uranium pending disposition in upgraded and consolidated facilities.

Waste Management PEIS (DOE/EIS-0200). The Final PEIS was issued in May 1997. Multiple RODs are being prepared for various categories of waste. A ROD for the Treatment of Non-Wastewater Hazardous Waste was issued on July 30, 1998 (63 FR 41810, August 5, 1998). In the ROD, DOE decided to continue to use off-site facilities for the treatment of major portions of the non-wastewater hazardous waste generated at DOE sites. The ORR will treat some of its own non-wastewater hazardous waste on- site, where capacity is available in existing facilities and where this is economically favorable. A second ROD for Transuranic waste was issued on January 23, 1998 (63 FR 3629, January 23, 1998). Transuranic waste at the ORR will be packaged to meet waste acceptance criteria for the Waste Isolation Pilot Plant (WIPP) in New Mexico and then stored on site for eventual disposal at the WIPP. Decisions for managing low-level radioactive waste, low-level radioactive and hazardous mixed waste, and high-level radioactive waste are still pending.

Project-Specific NEPA Reviews

Disposition of Surplus Highly Enriched Uranium EIS (DOE/EIS-0240). A ROD was issued on August 5, 1996 (61 FR 40619, August 5, 1996). The ORR, particularly Y-12, is one of the four DOE sites selected for implementing blending technologies for highly enriched uranium.

Interim Storage of Enriched Uranium Environmental Assessment (EA) (DOE/EA-0929). A Finding of No Significant Impact (FONSI) was issued on September 14, 1995. This allowed for the continued interim storage of enriched uranium at Y-12, with an increase in the amount of material stored above the historical maximum level. The S&D PEIS, discussed above, confirmed and extended this mission beyond the ten years assessed in the EA.

Replacement and Operation of the Anhydrous Hydrogen Fluoride (AHF) Supply and Fluidized-Bed Chemical Processing Systems EA. (DOE/EA-1049). A FONSI was issued on September 20, 1995. This allowed for replacement of the AHF supply and fluidized-bed reactor systems at Y-12 to meet operational and safety requirements and extend the life of the process by approximately 20 years.

Oak Ridge Related NEPA Reviews

Spallation Neutron Source (SNS) EIS (DOE/EIS-0247). The Final EIS was issued in April 1999 and the ROD in June 1999. This document evaluates four DOE alternative sites for construction and operation of a new SNS facility. The preferred alternative, a site at Oak Ridge National Laboratory (ORNL) on the ORR, was selected.

Lease of Land and Facilities Within the East Tennessee Technology Park (ETTP) EA (DOE/EA-1174). A FONSI was issued on December 1, 1997. The EA evaluated impacts of alternatives on future use and/or disposition of surplus facilities at the former K-25 Site on the ORR, and allowed for the lease of some facilities and land to commercial entities.

Long-Term Management and Use of Depleted Uranium Hexafluoride PEIS (DOE/EIS-0269). The Final PEIS was issued in April 1999. The ETTP is an alternative site for management and storage of this material.

Receipt and Storage of Uranium Materials for the Fernald Environmental Management Project Site EA (DOE/ORO-2078). The draft EA was issued for review in February 1999. Y-12 and the ETTP are among the candidate sites for storage of materials being removed in the cleanup effort at the Fernald Site in Ohio.

Transuranic Waste Treatment Facility EIS (DOE/EIS-030J). An NOI was published in January 1999. DOE proposes to treat transuranic waste at ORNL at a new privatized facility to be constructed near Melton Valley Storage Tanks, where the material is currently being stored.

2. The Scoping Process

2.1 Description of the Scoping Process

On March 17, 1999, DOE published a Notice of Intent in the *Federal Register* announcing its intent to prepare a SWEIS for the Oak Ridge Y-12 Plant (64 FR 13170). DOE notified interested persons, including Federal, state, and local government agencies, Native American tribal organizations, public interest groups, regulators, and members of the general public, to participate in the scoping process. In addition, DOE held 2 public scoping meetings in Oak Ridge on April 13, 1999, to allow interested parties to present verbal and written comments. The scoping period officially closed May 17, 1999.

To encourage broad participation by the public, DOE notified stakeholders by mail prior to the public scoping meetings and notified the media. Congressional representatives of affected states, the affected units of local government, and affected Indian tribes also were notified in advance of the public scoping meetings. Information releases were mailed to stakeholders and members of the general public notifying them of the opportunity to comment. Press releases and public service announcements were submitted to selected newspapers. DOE representatives were made available to meet with local television, radio, and newspaper reporters prior to each scoping meeting to provide information about the Y-12 SWEIS and the scoping process. Informational handouts and fact sheets were distributed widely at each scoping meeting and by request.

2.1.1 Public Meetings

Publication of the Notice of Intent on March 17, 1999 marked the beginning of the formal public scoping period for the SWEIS. An afternoon and evening public scoping meeting were held on April 13, 1999.

At the beginning of each session a neutral facilitator explained the scoping meeting format. This was followed by a welcome from a representative of the Y-12 Site management and a brief overview of the NEPA process by the ORO NEPA Compliance Officer. The DOE SWEIS Document Manager then presented an introduction and background of the Y-12 missions and history, and then an overview of the Y-12 SWEIS Proposed Action and Alternatives. A question and answer session was then held to encourage the public to ask questions and better understand the project before submitting comments. At the end of the question and answer period, the formal public comment portion of the scoping meeting began and the facilitator invited members of the public to comment on the scope of the SWEIS. A court reporter typed verbatim transcripts of the entire scoping meeting and an audiotape was made of the proceedings. Blank comment forms were available for those members of the public who preferred to provide written comments. Exhibits and handouts about the Y-12 Plant Site, Y-12 SWEIS, the NEPA Process, and the NOI were available for viewing and pickup at each meeting. Technical representatives were present to answer questions. In addition to the formal meetings, scoping comments could also be submitted to the DOE through phone, fax, and conventional and electronic mail. Information about the Y-12

SWEIS and the scoping process was available to the public on the Internet and in designated public reading rooms.

More than 345 people attended the 2 scoping meetings, of which 50 participants provided verbal comment. 574 people submitted 701 comments during the public comment period. Table 2.1.1-1 lists the categories of major issues identified during scoping and the number of people who commented on each.

Table 2.1.1-1 – Total Number of Comments and Commentors for Each Issue Code

Issue Category	Number of Comments	Number of Commentors
1 Purpose and Need	6	4
2 Alternatives	503*	478*
3 Modernization	67	23
4 Land Use	4	2
5 Transportation	0	0
6 Socioeconomics	1	1
7Geology/Soils	1	1
8 Hydrology	7	5
9 Ecological Resources	2	1
10 Air Quality/Noise	5	4
11 Cultural Resources	0	0
12 Waste Management	7	2
13 Occupational and Public Health	17	8
14 Cumulative Impacts	5	5
15 Mitigation	0	0
16 Project Specific Analyses	4	3
17 Policy Issues	11	7
18 Issues Outside the Scope of the SWEIS	52	23
19 Related NEPA Reviews	7	5
20 Public Participation	2	2
Total	701	574

*Note: A postcard campaign accounted for 461 of the total comments and commentors in this category

2.1.2 Results of the Scoping Process

The SWEIS will evaluate the programmatic and project-specific environmental impacts of the continued operation of the Y-12 Plant. Both construction and operation impacts will be addressed. In addition, the No Action Alternative will be analyzed by evaluating the continued operation impacts at Y-12 as well as limited upgrade and consolidation impacts.

The consolidation and limited upgrade impacts under No Action will include those previously identified and evaluated in the SSM PEIS. The SWEIS will also include evaluation of:

- Radiological and non-radiological releases to the environment
- Land use
- Site utilities/infrastructure
- Occupational and public health impacts
- Transportation
- Accidents, including those with low probability but high consequences
- Socioeconomic impacts, including the effect on employment and public services
- Environmental justice
- Waste management/pollution prevention
- Impacts to soil, water, and air
- Ecological resources including threatened and endangered species
- Cultural resources, the impacts to archaeological/historical sites and Native American resources
- Cumulative impacts from the Proposed Action and other past, present, and reasonably foreseeable future actions.

The text that follows provides a summary and compilation of the major issues raised during the public scoping process together with the general approach for resolution. The summarized comments are provided in Appendix, Table A.1-1.

Issue 1 – Purpose and Need

Issue Summary

One commentor questioned the need for the SWEIS in light of the fact that DOE had made previous facility siting and construction decisions without preparing NEPA reviews. The commentor specifically referenced the Bear Creek Disposal Cell being constructed in response to a CERCLA action.

General SWEIS Approach

The Bear Creek Disposal Cell is a CERCLA action and as such falls under the procedures outlined in the Secretarial Policy on the National Environmental Policy Act, June 1994. Among the procedures, this policy provides that DOE CERCLA documents incorporate NEPA values, such as analysis of cumulative, off-site, ecological, and socioeconomic impacts, to the extent practicable. The policy also states that DOE will take steps to ensure opportunities for early public involvement in the CERCLA process and will make CERCLA documents available to the public as early as possible. Both of these procedures were followed in the Bear Creek Disposal Cell action.

The SWEIS will include a chapter on the Purpose and Need for the DOE Actions. This chapter will also contain background information, policy considerations, and the Y-12 Site Programs considered in the SWEIS. Chapter 1 of the SWEIS will include a discussion of the applicable laws and regulations and the NEPA strategy for preparing this SWEIS. As stated in the Notice of Intent (NOI), the proposed actions in the Y-12 SWEIS are consistent with previous decisions of the DOE in the SSM and S&D PEIS RODs to downsize the Y-12 Plant and store non-surplus and surplus enriched uranium. The Y-12 SWEIS is the next step in DOE's NEPA strategy in determining how best to carry out its national security requirements at the ORR.

Issue 2 – Alternatives

Issue Summary

A number of commentors expressed support and approval of the proposed alternatives (i.e., Upgrade, New Construction, and Upgrade/New Construction) considered for analysis in the Y-12 SWEIS. Similarly, some commentors expressed their opposition to any alternatives that would shut down or further reduce Y-12 missions. Some commentors suggested that no action should be defined as a halt in weapons production and shutdown of the Y-12 facility.

Some commentors requested that the Y-12 SWEIS address consistency with, and incorporate recommendations and guidance from, previous studies and national policy direction. Specific examples were the report " The National Security Strategy for a New Century", the "End Use Working Group Report", and the "Integrated Safety Management Evaluation of the Y-12 Plant".

Commentors stated that the SWEIS should include a baseline of impacts of current operations as well as the potential impacts of modernization and construction/operation of a new Enriched Uranium Materials Facility. In addition, commentors suggested that local experts be interviewed to obtain a complete account of the historical operations and procedures at the Y-12 Plant. This was important, according to the commentors, to ensure that the maximum human health and environmental protection to the Y-12 employees and the surrounding communities is maintained.

One commentor wanted the SWEIS to address the Y-12 national security mission, the aging facilities and workforce, and increasing maintenance and operating costs. Another commentor suggested that the SWEIS be scoped broadly enough to accommodate existing as well as future needs (e.g., receiving nuclear materials from foreign sources).

General SWEIS Approach

Chapter 3 of the SWEIS will describe the Proposed Action and Alternatives. The description of alternatives, including the No Action alternative, will be developed based on Y-12 modernization planning, Defense Programs planning, other Y-12 Programs planning, NEPA analysis and previous NEPA programmatic information provided in the SSM and S&D PEISs. Because of the early stage of Y-12 modernization planning, the level of detail provided on the construction and operation data for the three "action" alternatives (Upgrade, New Construction, and the Upgrade/New Construction) will in some area be general and include many assumptions. The No Action alternative will be based on the Preferred Alternative selected in the SSM PEIS for Y-12 (Consolidate and Downsize) modified accordingly based on new program and mission needs. The shut down of Y-12 will not be analyzed in the SWEIS. The discussion of the No Action alternative, as well as other alternatives considered by eliminated from further study will be in section 3.3 of the SWEIS. The description and analysis of potential impacts of the construction and operation of the Enriched Uranium Materials Facility will be based on conceptual design reports currently being prepared for that facility.

The SWEIS will include a discussion where appropriate of studies, guidance or consistency with previous recommendations or findings. For example, sections on land use and waste management will include reference to the End Use Working Group Report, and the Occupational and Public Health section will discuss Y-12 safety management and as appropriate any ongoing or completed local and regional health studies.

The baseline of current operations impacts will be included in the SWEIS under the No Action alternative in chapter 5. The affected environment will be described in chapter 4 of the SWEIS. Historical operations at ORR and Y-12 will be reflected in the description of the affected environment. Potential impacts from each of the alternatives (Upgrade, New Construction, and Upgrade/New Construction) will be discussed in chapter 5 under appropriate headings for each resource area. Cumulative impacts will be addressed in chapter 6.

Chapter 1 (Introduction) and chapter 2 (Purpose and Need) will describe Y-12's role in national security and the impetus for modernizing Y-12 facilities (e.g., aging facilities, reduced budgets, and maintenance of a much smaller nuclear weapons stockpile.

Sub Issue 2.1 – No Action

Issue Summary

Commentors expressed confusion as to what No Action was and how it would be analyzed in the SWEIS. Commentors also stated that a total halt to weapons production at Y-12 and shutdown of the facility should be included in the SWEIS as the No Action Alternative. Some commentors, on the other hand, stated that this was not a viable alternative.

General SWEIS Approach

The No Action alternative included in the Y-12 SWEIS was described in the NOI for the SWEIS (FR 64 13179 March 17, 1999) and will reflect current facility operations being conducted throughout Y-12 in support of assigned missions. As specified in the SSM and S&D PEISs, these operations would continue in a reduced footprint of consolidated operations. Therefore, No Action includes environmental considerations of footprint reduction activities and limited upgrades of some existing facilities.

Although some commentors believe that No Action is not a viable alternative, NEPA regulations require analysis of the No Action alternative be included to provide a baseline for comparison with the environmental effects of the other alternatives. A Shut Down alternative will not be analyzed as a reasonable alternative. However, a discussion of this alternative and DOEs decision to not include it in the Y-12 SWEIS will be provided in chapter 3 of the SWEIS under the section "Alternatives Considered But Eliminated from Further Study".

Sub Issue 2.2 – Upgrade

Issue Summary

One commentor stated that the Y-12 mission could be accomplished with just consolidation and upgrade.

General SWEIS Approach

The SWEIS will analyze the potential impacts of consolidation and limited upgrade under the No Action alternative consistent with the SSM PEIS ROD. The SWEIS will also analyze a more expanded upgrade of the facilities under the Upgrade Alternative. Chapter 3 of the SWEIS will describe the No Action and Upgrade alternatives and chapter 5 will discuss the potential impacts from each alternative. Cumulative impacts will be addressed in chapter 6.

Sub Issue 2.3 – New Construction

Issue Summary

One commentor stated that the preferred alternative should be the new construction alternative.

General SWEIS Approach

A preferred alternative has not been selected at this time. The New Construction Alternative will be described in chapter 3 of the SWEIS and potential impacts discussed in chapter 5. A comparison of the potential impacts for each alternative will be presented in chapter 3. A preferred alternative will be identified in the Final Y-12 SWEIS.

Sub issue 2.4 – Combination Upgrade/New Construction

Issue Summary

A large post card campaign was received in support of the Upgrade/New Construction alternative. One commentor stated that it was necessary to identify buildings involved in this alternative even if they were tentative. Another commentor wanted the SWEIS Upgrade/New Construction alternative to show a true mix of upgrade and new construction instead of just adding the Upgrade alternative and the New Construction alternative together.
General SWEIS Approach

The Upgrade/New Construction alternative will reflect the current planning information on potential building upgrades and new construction. Because of the early stage of planning, specific building upgrades and new construction details will not be available. Therefore, to the extent known, tentative buildings, potential types of upgrade, and building status (e.g., upgrade, demolish and construct new, surplus, excess, and standby) will be identified. A bounding impact analysis will then be performed based on the description of the potential buildings, their modification, new construction or future status.

Sub Issue 2.5 – Other Alternatives

Issue Summary

Commentors suggested that the SWEIS consider the alternatives of stopping weapons production, dismantling all nuclear weapons, and closing Y-12. One commentor wanted the SWEIS to include an alternative that analyzed D&D of old buildings to make room for new buildings.

General SWEIS Approach

Section 3.3 of the SWEIS "Alternatives Considered But Eliminated From Detailed Consideration", will discuss those alternatives that suggest shutting down the Y-12 Plant and stopping all weapons production. The NOI for the SWEIS (FR 64 13179) explained DOE's decision to not analyze this alternative in the Y-12 SWEIS.

The D&D of old buildings, their demolition, and the construction of new buildings is included as a subpart of the New Construction alternative and the Upgrade/New Construction alternative. A separate alternative covering just D&D, demolition, and construction would not meet mission requirements, and would not be appropriate as a stand alone alternative to be analyzed in the SWEIS.

Issue 3 – Modernization

Issue Summary

A large number of commentors acknowledged that the Y-12 facilities were more than 40 years old, were expensive to maintain, and that activities were spread out over the entire Y-12 site complex. The commentors stated that modernization of the facilities was needed to reduce operating costs, and enhance health, safety, and environmental requirements. The commentors also stated that modernization would optimize the life cycle savings and reduce production time, enhance reliability, and improve employee worker and public health and safety.

Commentors were also concerned about the potential budget impacts of modernization on EM activities and the life cycle cost analysis that would be used to determine whether a building would be upgraded, be demolished and newly constructed, or declared surplus or excess to mission needs and turned over to EM. In particular, commentors pointed out that it was more difficult to assign a cost to such things as environmental issues and health and safety.

Commentors stated that modernization of Y-12 should not be delayed. They also stated that a piece-meal approach to upgrades would not be appropriate because of the new advancements in health and safety technologies and processes.

Other commentors suggested that modernization of Y-12 include replacing the existing coal fired steam plant, coordinating planning between DP and EM, and incorporating the End Use Working Group Report recommendations.

One commentor opposed modernization of any nuclear processes or facilities except for those involved with dismantling weapons and processing and storage of highly enriched uranium.

General SWEIS Approach

Modernization of Y-12 facilities and processes is part of each of the "action" alternatives analyzed in the SWEIS. The types and degree of modernization varies among the alternatives. DOE anticipates that each of the alternatives will have some life cycle cost savings, enhance reliability, and improve employee worker and public health and safety. The potential benefits as well as impacts associated with each of the alternatives will be discussed in chapter 5 (Impacts) of the SWEIS.

DOE agrees with the commentor that it is difficult to assign cost to health and safety issues, however, DOE will consider them in the life cycle cost analysis being performed. A brief discussion of the life cycle cost process will be included in the SWEIS to help readers understand this complex process.

Defense Programs and Environmental Management are coordinating potential workload/budget effects on EM from the alternatives being analyzed in the SWEIS. Because of the early planning stage of potential activities associated with the alternatives, only tentative building status changes can be identified in some scenarios, including, which buildings will be declared surplus or excess and transferred over to EM. In some cases, buildings may be identified as candidates for both potential upgrade or declared surplus when the conceptual design planning does not permit a more detailed determination. In these instances, the SWEIS will analyze the potential impacts for each of the options and/or scenarios identified. As design and decision planning progresses, further review under NEPA will be performed and EM will update their workload and budget estimates accordingly.

The SWEIS will analyze three alternatives that include a range of modernization effects. Each of the alternatives will be analyzed for potential benefits as well as impacts. The SWEIS will include a comparison of the alternatives in chapter 3 so that the reader can compare the potential beneficial and adverse impacts of the Upgrade, New Construction Upgrade/New Construction, and No Action alternatives.

The existing infrastructure will be considered in light of each of the alternatives to determine appropriate upgrades or replacement during the conceptual design development. Where appropriate, the SWEIS will identify and analyze these infrastructure improvements for potential impacts. The modernization of Y-12 weapons production facilities will be included in the SWEIS consistent with previous decisions made by DOE in the SSM and the S&D PEIS ROD's to continue the weapons complex mission at Y-12. Chapter 2 (Purpose and Need) and chapter 1 (Introduction) will explain the rationale for DOE's action and the scope of the SWEIS analysis.

Issue 4 – Land Use

Issue Summary

Commentors stated that the SWEIS should consider, incorporate, and be consistent with the End Use Working Group Report recommendations for ORR. In particular, they pointed out specific parts of the site that should remain regulated waste sites, and the consolidation of government national security activities at the western end of the Y-12 site to free up the eastern area for industrial use. Commentors also stated that some areas (e.g., Lake Reality and New Hope Pond site) should remain under government control.

General SWEIS Approach

The Land Use section in chapter 4 of the SWEIS will discuss the End Use Working Group Report and recommendations as appropriate. Chapter 5 (Impacts) under Land Use will discuss consistency with land use plans and policies, including consistency with End Use Working Group Report recommendations.

Issue 6 – Socioeconomics/Environmental Justice

Issue Summary

One commentor stated that Y-12 has had impacts on the Scarboro community, and referenced specifically that soil sampling revealed high levels of enriched uranium. Another commentor wanted the economic benefits of the alternatives analyzed in the SWEIS.

General SWEIS Approach

The SWEIS will characterize the baseline affected environment for socioeconomic and community services using the best available data in chapter 4. Both the direct and indirect impacts of worker and mission economic gains and losses will be analyzed. Community service impacts will be analyzed based on the increase or decrease of workers at the site. The potential impacts on minority and special interest groups will be addressed in chapter 5 of the SWEIS in accordance with the latest guidance on environmental justice.

Issue 7 – Geology/Soils

Issue Summary

One commentor noted that ORR lies in a region of high seismic activity and stated that a 1993 DOE Safety Survey indicated that Y-12 facilities would not survive a medium-strength earthquake.

General SWEIS Approach

The SWEIS will describe the existing seismic setting for ORR in chapter 4. The geology/soils section of chapter 5 will discuss the probability and frequency of potential seismic events. The potential impacts of a seismic event will be included in the Occupational and Public Health section of chapter 5 under Accidents.

Issue 8 – Hydrology

Issue Summary

Commentors stated that both groundwater and surface water impacts should be addressed in the SWEIS. Commentors also noted that groundwater contamination from Y-12 has already been identified offsite in Union Valley.

General SWEIS Approach

The SWEIS will characterize the surface and groundwater affected environment using the best available data and studies in chapter 4. Both onsite and off-site water quality will be described. Ongoing remediation and mitigation/monitoring activities will also be described. Characterization of contamination will include radiological and chemical constituents, and the extent of contamination.

Sub Issue 8.1 – Surface Water

Issue Summary

Commentors stated that the SWEIS should include discussion of nuclide migration across the North Carolina border. Commentors also stated that potential water quality impacts to surface waters must remain within Tennessee State water quality standards.

General SWEIS Approach

The SWEIS will characterize the affected environment for surface water in chapter 4 using the best available data from recent studies and reports. The potential impacts of the Y-12 SWEIS alternatives will be discussed in chapter 5. Because of the early stage of conceptual design and planning for the alternatives, quantifying potential releases to the environment may not be possible. In most instances, a qualitative analysis of water quality impacts will be made. When project design is more fully developed and specific data is available, separate NEPA review would be performed to analyze in detail potential impacts to surface waters both on and off-site.

Sub Issue 8.2 – Groundwater

Issue Summary

Commentors stated that DOE should maintain control of certain areas of the ORR to ensure that groundwater contamination does not spread. Another commentor suggested that the Groundwater Treatment Facility be analyzed in the SWEIS.

General SWEIS Approach

The type and extent of groundwater contamination as well as any ongoing remediation, monitoring, and mitigation efforts will be described in chapter 4 of the SWEIS using the best available data and recent studies. Potential changes in land ownership and control through land transfers will be described under Land Use.

A discussion of the Groundwater Treatment Plant will be included in the water resources section (chapter 4) of the SWEIS. However, an analysis of the need to replace the existing plant will not be included in the SWEIS.

Issue 9 – Ecological Resources

Issue Summary

Commentors stated that the SWEIS should include a detailed discussion of wetlands, streams, karst areas, and other sensitive habitats on the ORR and Y-12. The commentors also stated that the document should include a discussion of site-related contaminate levels in biota and habitats which is available from site monitoring programs and site investigations related to RCRA and CERCLA activities.

General SWEIS Approach

The ecological resources affected environment will be characterized using the best available data and recent studies. Chapter 4 of the SWEIS will discuss the ecological resources settings and include wetlands, streams, special study areas (National Environmental Research Park), and any sensitive or designated critical habitats within ORR or Y-12. Endangered species and species of special concern will be discussed and their location relative to the actions identified in the alternatives noted. Letters initiating informal consultation on the Y-12 SWEIS with the U.S. Fish and Wildlife Service and the state natural resources office will be initiated. Letters received in response to the consultation and information request will be included as part of the SWEIS in an appendix.

Issue 10 – Air Quality/Noise

Issue Summary

Commentors stated that they would expect that some reduction in air emissions and effluents would occur as new technologies are implemented at Y-12.

General SWEIS Approach

The SWEIS will describe the current air quality environment for criteria pollutants, chemical, and hazardous air pollutants, and radiological emissions in chapter 4. The air quality analysis will be addressed by comparing projected alternative facility emission concentrations to applicable federal and state compliance standards and regulations. Air quality emissions and modeled concentrations will also be used in the worker and public health risk analysis to identify potential impacts from Y-12 operations due to normal operations as well as accidents.

Issue 12 – Waste Management/Pollution Prevention

Issue Summary

Commentors stated that the SWEIS should include a discussion of plans for waste minimization, stored wastes, and cleanup of legacy wastes. In addition, project generated waste should be characterized, its treatment and disposition identified, and any new or upgraded treatment or storage facilities required to meet anticipated waste streams or regulatory requirements discussed.

General SWEIS Approach

The SWEIS will characterize the baseline affected environment using the best available data in chapter 4. The current waste management operations at ORR and Y-12 will be discussed including the types of waste, volumes, and treatment/storage facilities available and their capacities. The waste generated from Y-12 operations for each of the alternatives will be based on conceptual design and planning study data to the extent possible. Current and historical waste generation volumes and types of waste streams will be used as a basis for estimation if other information is not available.

Issue 13 – Occupational and Public Health

Issue Summary

Commentors stated that the public and worker health and safety aspect of enriched uranium, beryllium, and other radiological and hazardous materials needs to be addressed in the SWEIS. Specifically, commentors requested that the SWEIS include: 1) analysis of off-site exposure to uranium contaminated dust; 2) the potential hazard to workers due to external

gamma and possible criticality reactions from storage of enriched uranium; and 3) a chronic beryllium disease management plan.

Commentors suggested that the SWEIS include a discussion of the efficiency of control systems used to protect workers and the public; that the SWEIS analyze and discuss the post-treatment impacts from radiological and hazardous materials; and include an accident hazard analysis and emergency management plan.

Commentors stated that SWEIS alternatives should continue the stringent health and safety standards, be consistent with health and Safety Action Plans, and include state-of-the-art technology to reduce radiological exposure to workers. The commentors pointed out that both defense and non-defense related activities at Y-12 be analyzed for human health and environmental effects.

General SWEIS Approach

The SWEIS will characterize the occupational and public health environment at ORR and Y-12 using the best available data from monitoring reports and recent studies in chapter 4. Historical operation data will be used in some cases to analyze potential impacts when conceptual design data is not available. The historical data will be adjusted as appropriate to account for any potential changes in the facilities and processes due to upgrade or new construction. Air quality data and analysis will be used in determining the site's specific worker and public health risk from Y-12 operations. Worker and public health impacts will be analyzed for both normal operations and accidents in chapter 5.

Issue 14 – Cumulative Impacts

Issue Summary

Commentors stated that Y-12 activities were responsible for off-site contamination of soil, water, and air. They asked if the SWEIS would include a discussion of potential impacts in a 500-mile radius of Y-12. Other commentors pointed out that the SWEIS should include the potential beneficial impacts on the local and state economy due to the use of Y-12 facilities for other projects such as those offered through the Oak Ridge Centers for Manufacturing Technology.

General SWEIS Approach

The SWEIS will include a chapter on cumulative impacts (chapter 6) that will address the potential impacts of both Y-12 activities and other past, present, and reasonably foreseeable projects at ORR and in the surrounding area. The affected environment, sometimes referred to as the region of influence, varies with the issue being analyzed. For example, public health impacts address an impact area up to 50 miles (80 Km), whereas the socioeconomic analysis will analyze effects within a number of surrounding counties. Analyzing potential impacts up to a 500-mile radius of Y-12 will not be conducted in the SWEIS.

Issue 15 – Mitigation Measures

Issue Summary

Commentors stated that the SWEIS should include appropriate mitigation measures. Specifically, they pointed out the vulnerability of Building 9215 to flood waters, and mitigation measures found in the End Use Working Group Report recommendations for the East Fork Poplar Creek Watershed.

General SWEIS Approach

Where possible, engineered and administrative mitigation measures will be incorporated into the upgrade and/or design of new facilities and processes. Additional mitigation measures will be identified as appropriate during preparation of the SWEIS to further reduce or eliminate potential adverse environmental impacts.

Issue 16 – Project-Specific Analysis

Issue Summary

Commentors stated that there was a need for a new Enriched Uranium Materials Facility and that the SWEIS should analyze the impacts of construction and operation of the facility. One commentor added that the highly enriched uranium be downblended to low-enriched uranium and that the SWEIS should include an analysis of the blending technology, location of the blending facilities, and accident impacts.

General SWEIS Approach

The SWEIS will include a detailed project-specific analysis of the construction and operation impacts of the proposed Enriched Uranium Materials Facility as an appendix. The SWEIS will not include separate analysis of enriched uranium disposition. The DOE Office of Materials Disposition addressed the disposition of highly enriched uranium in the Disposition of Highly Enriched Uranium Environmental Impact Statement (DOE/EIS-0240) June 1996.

Issue 17 – Policy Issues

Issue Summary

Commentors questioned why the U.S. has not complied with commitments in the Nuclear Nonproliferation Treaty to complete nuclear disarmament at an early date.

Some commentors stated that the SWEIS needed to acknowledge that the Y-12 was a CERCLA site and that consistency with CERCLA activities or potential impacts to the CERCLA process be discussed.

One commentor stated that DOE should be regulated under the same rules and regulations on worker occupational health and safety as any other entity.

General SWEIS Approach

The United States continues to pursue negotiations in good faith on effective measures to end the nuclear arms race and achieve total nuclear and general and complete disarmament in accordance with Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). At the 1995 NPT Extension Conference, the non-nuclear weapons states weighted the evidence presented by the nuclear weapons states that the latter were implementing their obligations under Article VI. On the whole, the non-nuclear weapon states welcomed the actions taken by the United States and Russia to reduce nuclear arsenals. Chapter 2 of the SWEIS will discuss the background and policy considerations of the Y-12 SWEIS actions relative to the NPT.

The CERCLA activities at Y-12 will be discussed in chapter 4 of the SWEIS where appropriate in describing the affected environment. Impacts to the CERCLA process and ongoing or planned actions will be identified and included in the SWEIS. Consideration of CERCLA and RCRA activities have been factored into the development of the SWEIS alternatives.

The SWEIS will discuss DOEs occupational health and safety structure as regulated by 29 CFR 1960, *OSHA Standards for Federal Agencies*, DOE O 440.1 *Worker Protection Management for DOE Federal and Contractor Employees*, and DOE O 441.1, *Radiological Protection for DOE Activities*.

Issue 18 – Issues Outside the Scope of the SWEIS

Issue Summary

A number of commentors opposed the production or maintenance of nuclear weapons at Y–12. They urged the U.S. to halt all nuclear weapons design and production and close the Y–12 Plant. Some commentors felt that having a nuclear weapons arsenal in the U.S. forced other countries to produce biological and chemical weapons, and made the Oak Ridge area a target for attack.

Commentors stated that Y-12 workers and U.S. dollars should be focused on creative and useful work such as cleaning up the environment or radioactive waste, and developing new energy sources instead of maintaining and producing nuclear weapons.

One commentor expressed concerns about the production of tritium in commercial light water reactors of the TVA, and the potential health effects of tritium. Another commentor felt that spiritual experts be used in the EIS process to connect the natural, social, and economic environments with the spiritual environment.

Other commentors suggested a number of issues that should be considered by DOE such as the benefits of the proposed Oak Ridge Theta Pinch fusion demonstration plant and the need to develop a new clean world energy source.

General SWEIS Approach

The issues identified above are considered outside the scope of the Y-12 SWEIS and will not be addressed in the document. The analysis of the tritium production in a TVA reactor was included in the Final Environmental Impact Statement for the Production of Tritium in a Commercial Light Water Reactor (DOE/EIS-0288) March 1999.

Issue 19 – Related NEPA Reviews

Issue Summary

A number of commentors stated that the SSM PEIS and the S&D PEIS be used as the beginning scope and basis of analysis for the Y-12 SWEIS. The commentors believed that the continuing national security mission assigned to Y-12 was reaffirmed in the ROD's for the SSM and S&D PEISs.

Some commentors wanted additional NEPA reviews and other studies considered in the SWEIS. Specifically, they identified documents pertaining to Bear Creek Valley, the Pantex SWEIS, the final PEIS for UF6 and the Initial Plan, and investigations under CERCLA and RCRA.

One commentor requested that after the Y-12 SWEIS is completed that sufficient time be allowed for the public to review the document prior to making a decision.

General SWEIS Approach

As noted in the NOI for the Y-12 SWEIS, the approach is to tier from the SSM and S&D PEISs as much as possible. The NOI explained the background (which will also be discussed in chapter 1 of the SWEIS) related to decisions involving Y-12 stemming from the ROD's for the two PEISs. The scope of the SWEIS will therefore include the continuing nuclear weapons complex production mission assigned to Y-12 as well as the processing and storage mission for enriched uranium.

The SWEIS will include data from studies as appropriate conducted at ORR and Y-12, such as those associated with Bear Creek Valley, and CERCLA and RCRA investigations. The PEIS on UF6 will be updated to the final version and included in the list of ORR related NEPA reviews. At the time of publication of the NOI for the Y-12 SWEIS only the draft version of the document was available.

A decision on the Y-12 SWEIS will be made no sooner than 30 days after publication of the Final SWEIS. Because of the early stage of conceptual design development anticipated to be available for use in the SWEIS, tiered NEPA reviews will be prepared before some project-

specific actions are taken. The public will be notified of these reviews to provide comments at the appropriate time.

Issue 20 – Public Participation

Issue Summary

One commentor requested a workshop during preparation of the SWEIS at a later date to keep the public informed; another commentor felt intimidated at the public scoping meeting about voicing an opinion against nuclear weapons production because of the large number of Y-12 supporters present at the meetings.

General SWEIS Approach

A public workshop has been tentatively scheduled for September 27, 1999. Advance notice of the workshop will be made announcing the date, time, and location.

The public scoping meeting was conducted to allow all interested parties to voice their comments on the scope of the SWEIS. A number of people opposed to nuclear weapons production and in favor of total nuclear disarmament spoke at the meetings, however, as the commentor noted, there was a substantial contingent of Y-12 supporters at the meeting which could have been intimidating to some members of the public. DOE recognizes that not all members of the public feel comfortable with voicing their comments in public. Therefore other means to submit comments such as written hand-ins at the meeting or submittal of comments by fax, telephone or by e-mail was made available to the public.

APPENDIX A

ISSUE SUMMARIES

Table A.1-1

Issue 1 – Purpose and Need
The commentor questions the need for the SWEIS when DOE's decision to build a "waste disposal cell" last year was made without the need of such an analysis. (1 comment) The commentor feels that if DOE is already planning on moving the mission to another state and take jobs away from East Tennessee then they should go through with it without wasting taxpayer money on the EIS process. (1 comment) The commentor suggests stewardship planning to be incorporated into the SWEIS. (2 comments) The commentor believes that the Y-12 missions are required and the U.S. cannot dismiss plans for the long-term storage and disposition of nuclear materials. (1 comment)
Issue 2 – Alternatives
The commentor hopes that the Y-12 SWEIS draws from the conclusions in previous PEISs, and a report entitled "The National Security Strategy for a New Century" that was issued last fall from the White House. The commentor also points out that the Y-12 is essential in managing and maintaining the existing nuclear weapons inventory. (1 comment) The commentors support the alternatives associated with upgrading the existing Y-12 facilities, construction of new facilities, and a combination of the two approaches. (19 comments). In addition, four commentors state their opposition to any alternatives that would shut down or further reduce the missions at Y-12. Three commentors noted that the alternatives associated with shutting down or further reducing the missions at Y-12 were analyzed in previous PEIS documents and were found to be unacceptable options. The commentors agree with DOE's choice of "proposed actions" to cover a baseline of impacts associated with current activities as well as those potential impacts associated with construction of the new enriched uranium facility as well as other modernization projects. (3 comments) The commentors state that each alternative should address its degree of compliance with the End Use Working Group recommendations at the Y-12 site. (2 comments) The commentor suggests that DOE interview the local experts in order to get a complete account on the historical operations and procedures at Y-12. (1 comment) In addition, one commentor states that this analysis is important in maintaining the maximum human health and environmental protection to the Y-12 employees and the surrounding communities. The commentor states that the SWEIS should assess each alternative in correcting the "vulnerabilities" identified in the December 1996 Report. (1 comment) The commentors state that the alternatives summarized in the Notice of Intent are reasonable and therefore, no other alternatives should be considered. (2 comments) The commentor believes that the national security mission, the aging facilities and workforce, and the rising maintenance and operating costs should be addressed in the SWEIS. (1 comment) The commentors suggest the Y-12 SWEIS to be scoped broadly enough to accommodate future needs and operations at the site. For example, the commentors believe that this would be extremely important with regard to receiving materials from foreign sources to support both national and international policies at Y-12. (2 comments)

Issue 2 – Alternatives (continued)

The commentor states that DOE must analyze goals to successfully manage alternatives for depleted uranium over the long-term. These goals include: the effects of construction on water, air quality, and soils; the socioeconomic impacts of the management alternatives; ecological impacts; the management of waste from cylinder scraping and painting activities; resource requirements; land usage; impacts to cultural resources; environmental justice issues; and cumulative health and environmental impacts to employees and the public. (1 comment)

Issue 2.1 – No Action

The commentor asks for clarification on the No Action Alternative. The commentor does not understand the No Action Alternative; shutting down the site or continuing with normal site operations. (1 comment)

The commentor believes that the No Action Alternative, continuing what we are doing today at the site, is inappropriate. The commentor points out that soil samples revealed contamination at Scarboro, and therefore, the plant should be decontaminated and decommissioned. (1 comment)

The commentors believe that although the "No Action" Alternative is required by law, it is not a viable option. (4 comments)

The commentor suggests that DOE consider a No Action Alternative, which analyzes no further action (halting nuclear weapons production) at Y-12. (1 comment)

The commentor believes that the consolidation of Y-12 into a more integrated footprint will optimize production flow, reduce security costs, and reduce costs associated with utilities and support costs. (2 comments)

Issue 2.2 – Upgrade

The commentor believes that this mission can be accomplished with the upgrade and consolidation of facilities at the Y-12 site. (1 comment)

Also see general comments under Issue 2 - Alternatives

Issue 2.3 – New Construction

The commentor states that the preferred alternative should be the construction of new facilities to replace the old facilities and processes. (1 comment)

Also see general comments under Issue 2 - Alternatives

Issue 2.4 – Combination of Upgrade/New Construction

A post card campaign for the Upgrade/New Construction Alternative generated over 450 supporters for the action.

The commentor believes that the alternatives identified in the Notice of Intent were well thought out, however, the commentor wants to make sure that a combination of the construction and upgrading alternatives are included in the SWEIS. In addition, the commentor believes that it is necessary to identify buildings for this combination alternative even if they are tentative. (1 comment)

Issue 2.4 – Combination of Upgrade/New Construction (continued)

The commentor suggests that the Upgrade/Construction Alternative should analyze mixes of the two alternatives and not just simply add the Upgrade and Construction Alternatives together. (1 comment)

Issue 2.5 – Other Alternatives

The commentors believe that an additional alternative (option) should be added which would include discontinuing the building of more nuclear weapons and working on dismantling and disposing of old nuclear weapons. (2 comments)
The commentor would like the Y-12 SWEIS to include an additional alternative of decommissioning and decontaminating some of the old buildings in order to make room for the new facilities. (1 comment)

The commentor states that an additional alternative may be the decontamination and decommissioning of surplus facilities within the PIDIS fence area in order to provide brownfield sites for new construction within the Defense Programs. The commentor adds that none of these facilities should be transferred to the EM list. (1 comment)

The commentor suggests closing Y-12 as another alternative. (1 comment)

Issue 3 – Modernization

The commentors point out that over 70 percent of the Y-12 facilities are more than 40 years old resulting in higher maintenance and operating costs while 50 percent of the workforce will be eligible for retirement within five years . The commentors add that maintenance and operating costs are also rising as a result of the aging equipment and facilities. The commentors feel that all of these issues should be addressed in the SWEIS. (5 comments)

The commentors suggested that modernized Y-12 operations would assure that the unique production, development, dismantlement, and storage capabilities are preserved. (3 comments)

The commentors believe that modernization at Y-12 would be beneficial. The commentors support all the alternatives that involve modernization at the plant. The commentors state that modernization of the Y-12 facilities will reduce operating costs and enhance health, safety, and environmental requirements while meeting the needs of Y-12's national security role. (26 comments) The commentors support the modernization efforts at Y-12 and believe that the Y-12 mission will continue to support research and technology, and economic and employment opportunities. In addition, the Y-12 mission will continue to uphold the protection of human health and safety, and our natural resources. (3 comments) The commentors suggest that modernization of Y-12 will help achieve the goals for the next generation. (5 comments) In addition, commentors also believe that the new technology and smarter work habits will only make the work safer for the employees. (3 comments) The commentors believe that modernization will result in a more economic and efficient facility and lower labor costs, while saving the taxpayer money (8 commentors). Also, the new equipment and upgraded processes will reduce maintenance and operating costs. (4 comments) The commentors believe that life cycle savings will be extended from the new technologies that will be used at Y-12 that reduce production time, enhance reliability, and improve employee worker and public safety and health. (4 comments) The commentors add that modernization will allow Y-12 to carry out the mission with the quality of work the plant is known for. (1 comment) The commentors also believe that the modernization of Y-12 will ensure long-term rapid response of the facility and its processes which are critical to its national security role. (9 comments)

The commentor supports the modernization efforts at Y-12; however, they are concerned about the impacts on EM's budget. The commentor believes that the EM budget could be affected by transferring the surplus facilities to the EM program earlier than planned and increasing the funding for the Y-12 on the balance of the other ORR program budgets. The commentor believes the budgets for all three ORR facilities come from the same annual budget allocations. (1 comment) The commentor is concerned about the lifecycle process because it is hard to give a cost on environmental issues and health and safety impacts. The commentor does not want to see the modernization of Y-12 delayed by the D&D of excess facilities due to EM's budgetary problems. The commentor would like the SWEIS to address how these costs were assigned to these impacts. (2 comments)

Issue 3 – Modernization (continued)

The commentor points out that reconfiguration of the manufacturing facilities will mean a smaller and more efficient production complex and asks how DOE will fully utilize the site for the benefit of national security or other federal programs if this is the case. (1 comment)

The commentors state that Y-12 is a safe place to work and that it is time for modernization to take place. In addition, the commentors suggest that DOE should quickly expedite this process and allow construction to begin as soon as possible. (3 comment)

The commentors believe that partial improvement and/or upgrades at Y-12 are no longer appropriate due to the substantial advancements in health and safety technologies. (2 comment)

The commentor suggests that the SWEIS consider the modernization processes that have received less attention in the past, including both non-nuclear and non-routine processes. (1 comment)

The commentor believes that the modernization of Y-12 will eliminate environmental concerns present in the existing facilities with the implementation of state-of-the-art processes. (1 comment)

The commentor believes that the modernization of Y-12 will reduce environmental impacts. (1 comment)

The commentor opposes the modernization of nuclear weapons processes and/or facilities of any nature. The commentor supports the dismantling of nuclear weapons, and the processing and storage of highly enriched uranium in order to make it difficult for it to be used for nuclear weapons production. (1 comment)

The commentor suggests that the SWEIS should analyze replacing the existing coal fired steam plant with a less polluting, more efficient facility. (1 comment)

The commentor states that modernization of the Y-12 plant must be coordinated with EM's plans for remediation at the site. The commentor believes that the SWEIS should assess coordination of planning and construction activities of the two programs. (1 comment)

The commentor suggests that modernization of the Y-12 plant should be consistent with the End Use Working Group recommendations. Another commentor stated that DOE should provide a sufficient amount of information on the impacts of current operations so that the Y-12 SWEIS can be used as a reference document for future modernization projects. (1 comment)

Issue 4 – Land Use

The commentor states that the Chestnut Ridge property should continue to be used and safely maintained for ORR's regulated waste disposal. (1 comment)

The commentors suggest that national security should be concentrated in the western, controlled industrial property areas of the plant to allow for the broadest possible uses of the rest of the site. (2 comments)

The commentor states that the eastern end of the plant should be made suitable for uncontrolled industrial use. In addition, the commentor states that the Lake Reality and the New Hope Pond site, under Government control, should be consistent with the end uses for this eastern area of the site. (1 comment)

The commentor suggests that the impact to existing utility services during the upgrade or installation of new facilities should be analyzed in the SWEIS. (1 comment) These services include potable water, natural gas, electric, stormwater, wastewater, etc. The commentor adds that the effective isolation of the new environment and the protection of human health must be accomplished and should be included in the SWEIS. (1 comment)

Issue 5 – Transportation

No comments

Issue 6 – Socioeconomics/Environmental Justice

The commentor points out that Y-12 emissions fall on the Scarboro community, which is predominantly African American. The commentor also states that soil sampling revealed high levels of highly enriched uranium in the Scarboro residential neighborhoods. (1 comment)

The commentor states that project related socioeconomic effects should be addressed in the Y-12 SWEIS. In addition, the commentor supports the economic benefits that the region will obtain from the modernized Y-12 plant. (1 comment)

Issue 7 – Geology/Soils

The commentor states that the ORR lies in a region of high seismic activity, which suggests that a big earthquake is likely to occur in the future. In addition, the commentor points out that DOE's 1993 Safety Survey indicates that Y-12 facilities would be unable to withstand a medium-strength earthquake. (1 comment)

Issue 8 – Hydrology

The commentor states that impacts on surface water and ground water contamination should be addressed in the SWEIS and is essential to planning overall remediation. The commentor also states that contaminated groundwater plumes flow beneath the Y-12 property and offsite into Union Valley. (1 comment)

Issue 8.1 – Surface Water

The commentor suggests that the findings from the Clinch River Environmental Restoration project should be incorporated into the SWEIS. More specifically, since the Clinch River empties into the Tennessee River which in turn, has tributaries that enter North Carolina, the commentor would like to see an analysis on nuclide migration across the Carolina border. (1 comment)

The commentors state that the surface waters and tributaries of the Upper East Fork Poplar Creek must meet state water quality standards. The commentors add that in the interim the water quality must not impose a risk to the employees at Y-12 or the surrounding communities. (2 comments)

Issue 8.2 – Groundwater

The commentors recommend that groundwater from Y-12 and Chestnut Ridge continues to be controlled by the Federal Government so that current uncontaminated water does not become contaminated in the future. (2 comments)

The commentor suggests that the replacement of the Ground Water Treatment Facility, which is currently overloaded, be analyzed in the SWEIS. (1 comment)

Issue 9 – Ecological Resources

The commentor states that the SWEIS should include a detailed discussion on wetlands, streams, karst areas, and other sensitive habitats on the ORR at the Y-12 complex. (1 comment)

The commentor states that the information generated by the ORR biological monitoring program and site investigations related to waste management and remediation under RCRA and CERCLA should be presented in the Y-12 SWEIS. The commentor suggests that the Y-12 SWEIS should discuss site-related contaminant levels in biota and habitats, and risk-based remedial objectives and proposed clean-up levels. The commentor

believes an ecological risk assessment should be part of the SWEIS screening process. The commentor believes this information is imperative in order to give a thorough analysis on the environmental conditions at the Y-12 site. (1 comment)

Issue 9 – Ecological Resources (continued)

The commentor states that the Draft SWEIS should cover threatened and endangered species that occur in the vicinity of the Y-12 complex, including the endangered gray bat, and the numerous karst features. The commentor states that certain findings could lead to consultation procedures under Section 7 of the Endangered Species Act. The commentor noted that a dead gray bat was found on the Y-12 complex and is now being tested for potential exposure to site-related contaminants at ORR. (1 comment)

Issue 10 – Air Quality/Noise/Visual

The commentors believe that air emissions and effluents will be reduced as new technologies are used at Y-12. (2 comments)

Issue 11 – Cultural Resources

No comments.

Issue 12 – Waste Management/Pollution Prevention

The commentors suggest that the SWEIS should discuss the plans for waste minimization, the plans for current inventories of stored waste, and plans for the clean up of legacy wastes. (2 comments)

The commentor suggests that the clean up of legacy waste should be analyzed in the SWEIS. The commentor refers specifically to the Old Salvage Yard, Uranium Oxide Vaults, and the 9720-44 Sludge Handling Facility. (1 comment)

The commentor suggests that each alternative proposed in the SWEIS should provide information on the final disposition of the generated waste. In addition, the amount of waste and the time it is on site should be limited to minimize the creation of new legacy waste. The cost of each alternative should include waste storage and disposition costs. (1 comment)

The commentor states that in analyzing the three alternatives DOE should not lose sight of protecting the employees and reducing emissions and doses. In addition, the DOE should keep only the buildings that are designed for low emissions, minimization of movement of material, and efficient work processes. The commentor states that the redesign of the Y-12 complex should minimize waste streams by transporting wastes from one radiation area to another as little as possible. (1 comment)

The commentor states those “non-defense related” issues, such as environmental monitoring and waste management, and "defense related" issues can not be separated. In addition, the commentor states that DOE cannot produce products without creating a waste stream that it must take responsibility for. (1 comment)

The commentor states that the top priority should be waste minimization related to modernization efforts. (1 comment)

The commentor suggests that the SWEIS should analyze the best available treatment for process waste streams. The commentor states that upgrades will be required at some facilities, while a new facility will be required for the Central Pollution Control Facility and the West End Treatment Facility. (1 comment)

The commentor states that the Chestnut Ridge property should continue to be used for regulated waste disposal for the ORR. (1 comment)

Issue 13 – Occupational and Public Health

The commentor believes a detailed review on uranium toxicity should be included in the Y-12 SWEIS; particularly on airborne dusts which represent the most likely path for off-site exposure. In addition, the commentor believes the general public has a poor understanding about uranium toxicity. (1 comment)

The commentor suggests that the Y-12 SWEIS evaluate the efficiency of the control systems that protects the employees and the public health. (1 comment)

The commentor notes that, according to the Interim Storage of Enriched Uranium Environmental Assessment (DOE/EA-0929), a decision has already been made regarding an increase in the amount of highly enriched

uranium that Oak Ridge may store on-site. The commentor believes that such an increase is a potential hazard to workers due to external gamma as well as concerns of possible criticality reactions and would like such issues to be analyzed and included in the SWEIS. (1 comment)

Issue 13 – Occupational and Public Health (continued)

The commentor suggests that the SWEIS provide equal consideration to effects of both non-defense and defense related activities associated with human health and the environment. (1 comment)

The commentors believe that an upgrade of the Y-12 is important in continuing the stringent health and safety standards for the employees and the surrounding community. (2 comments)

The commentor suggests that the SWEIS should use a method to insure consistency with Health and Safety Action Plans. (1 comment)

The commentors state that radiological support costs will be reduced from the safety engineered barriers that will be built into the facilities. (2 comment)

The commentor would like to see an accident hazards analysis and the resulting emergency management plans included within the SWEIS. Specifically, the commentor pointed out weaknesses listed in an evaluation of the Y-12 Plant's Emergency Management structure performed by the DOE ES&H Office of Oversight. (1 comment)

One commentor suggests discussing the post-treatment impacts from radiological and hazardous materials. The commentor states that careful analysis and data collection on post-treatment procedures may answer a lot of questions involving worker and public safety and health. (1 comment)

The commentor states that a chronic beryllium disease management plan is a good tool in protecting the workers health. (1 comment)

The commentor suggests evaluating the human and environmental effects of activities associated with defense and non-defense programs, such as the Defense Program, Environmental Management Program, Work-for-Others Program, and Technology Transfer at the Y-12 site. (1 comment)

The commentor states that the deficiencies addressed in the "Integrated Safety Management Evaluation of the Y-12 Plant, December 1998" should be analyzed in the SWEIS. These deficiencies address the following: (1) The non-nuclear facilities and site-wide programs should be modernized along with the facilities at Y-12 in order to protect the surrounding communities and the Y-12 employees; (2) There should be a hazard identification, analysis, and development of controls for non-routine work activities within the non-nuclear facilities; (3) The contractor lacks the ability for managing subcontractor construction activities and there should be an effective way of managing and analyzing corrective actions, findings, and maintenance items; (4) The Y-12 plant should improve the safety management program in non-nuclear facilities, site-wide programs, worker participation, infrastructure upgrades, self assessments, and upkeep and transition of surplus facilities. (1 comment)

The commentor believes that human and ecological risk assessments should be part of the planning process for the SWEIS. The commentor adds that the human risk assessment should include the chemicals of concern, toxicity assessment, exposure assessment, and risk characterization; and the ecological risk assessment should follow the most recent EPA ecological risk assessment guidance. (1 comment)

Issue 13.1 – Normal Operations

No specific comments. See general comments under Issue 13 – Occupational and Public Health.

Issue 13.2 – Accidents

No specific comments. See general comments under Issue 13 – Occupational and Public Health.

Issue 14 – Cumulative Impacts

The commentor asks if the Y-12 SWEIS will provide information about the danger of potential impacts in a 500 mile (at 25 mile increments) radius of Y-12. (1 comment)

The commentor believes that Y-12 is responsible for air, water, and off-site soil pollution. The commentor also states that building more nuclear weapons will produce more pollution which will, in turn, cost more

money to clean up. (1 comment)

Issue 14 – Cumulative Impacts (continued)

The commentor believes additional issues related to the use of Y-12 facilities for other projects which will have significant impacts on the local and state economy should be considered in the scope of the Y-12 SWEIS. Federal agencies and other private companies can use unique facilities at the plant through the Oak Ridge Centers for Manufacturing Technology. The Oak Ridge Centers for Manufacturing Technology solves problems for small businesses, will train individuals in advanced manufacturing techniques, and generate more jobs. The Department of Defense can also use the Y-12 facilities to build and test prototypes of new products. (4 comments)

Issue 15 – Mitigation Measures

The commentor suggests addressing corrective action on mitigating effects due to specific flood events in the SWEIS. The commentor used an example from the July 22, 1997 flood event, in which water entered the Building Y-9215 and destroyed expensive equipment. The commentor suggests possible corrections for the Y-9215 problem such as: removal of process and equipment from vulnerable areas; improvement to the alley gradient, drainage, and storm sewer capacity; and D&D of the outdoor radiological contamination area to prevent uranium from being transported to EFPC through the storm grates. (1 comment)

The commentor states that short-term control and long-term remediation of contaminated source areas must be assured regardless of who is responsible for the Y-12 facility. In addition, the End Use Working Group recommendations must be implemented consistent with the Community Guidelines and needs for long-term stewardship. The commentor states that if DOE does not implement the recommendations for the Upper East Fork Poplar Creek Watershed, exceptions must be discussed in a public forum. (1 comment)

Issue 16 – Project-Specific Analysis

The commentors suggest the need for a new enriched uranium facility that will be designed and built to modern security and safeguard standards. (2 comments)

The commentor believes that DOE should analyze the impacts of the design, construction, and operation of the enriched uranium facility. (1 comment)

The commentor states that certain issues need to be addressed when managing highly enriched uranium. Highly enriched uranium is downblended to low-enriched uranium. The issues to be addressed are: the blending technology used that is a balance between environmental protection and cost effectiveness; location of the blending facility (not within a floodplain); and accident control and accident impacts. (1 comment)

Issue 17 – Policy Issues

The commentors point out that the United States is in violation of the Nuclear Nonproliferation Treaty of 1970, which calls for complete nuclear disarmament “at an early date”. Further, the commentor asks why these conditions have not been met when the United States had made a commitment to do so.
(4 commentors)

The commentor states that the SWEIS should use a method to insure consistency with the watershed CERCLA process. (1 comment)

The commentor points out that Y-12 is currently a Superfund site and was declared to be one of the most dangerously contaminated sites in the country by EPA in 1990 and asks if this will be discussed in the SWEIS. (1 comment)

The commentor states that the Division of Radiological Health continues to maintain that DOE should be regulated under the same rules and regulations as any other entity in the state, not by DOE's "self-regulation". (1 comment)

The commentor suggests that the potential impacts to the CERCLA process at Y-12 or the NPL status should be analyzed in the SWEIS. (1 comment)

The commentors believe that the only mission compatible with protecting the environment is the safe dismantlement of current weapons and the subsequent remediation of the pollution caused by their production. (2 comment)

The commentors believe that the Y-12 SWEIS should safeguard Nuclear Classified Information. (2 comment)

Issue 18 – Issues Outside the Scope of the Y-12 SWEIS

The commentor opposes all nuclear weapons production at Y-12 and believes that nuclear weapons production should end completely. (1 comment)

The commentors point out how the EIS process considers the natural, social, and economic environments which are all impacted by the spiritual environment and an EIS which fails to address the core spiritual environment, will fail to completely address the others. (2 comments)

The commentor suggests that spiritual experts be heard during the EIS process because there are real connections between what individuals expect in the way of environmental catastrophe. (1 comment)

The commentor believes that nuclear weapons production displaces the needed work on dismantlement and disposal of nuclear weapons, and the safe storage of highly enriched uranium until it can be downblended. (1 comment)

The commentor states that nuclear weapons are weapons of mass destruction and violate the conscience of humankind. (1 comment) The commentor states that nuclear weapons production is unacceptable, unnecessary, and unconscionable. The commentor also believes that DOE should side with God and eliminate all nuclear weapons. (1 comment) The commentors state that the security of nuclear weapons is not the answer in addressing human devastation and misery and feel that the production of nuclear weapons must be stopped. (5 comments) In addition, the commentors believe that DOE should address peace and not war. (7 comments)

The commentor believes that co-location of a bomb production facility makes transparency, international verification of arms control agreements and international control of special nuclear materials unlikely, if not impossible. (1 comment) The commentor suggests that all planning and construction done under the Y-12 SWEIS should be completed in such a way that the International Atomic Energy Agency can have access to the fissile material storage and processing areas. (1 comment)

The commentor believes that billions of dollars are "wasted" on maintaining nuclear weapons capability and should be used on human and environmental issues instead. The commentor suggests that people could be employed in meeting those issues instead of working on maintaining nuclear weapons production. (1 comment)

The commentor states opposition to the production of nuclear weapons and believes that our production of nuclear weapons is forcing other countries to produce biological and chemical weapons. (1 comment) The commentor believes that if $5 billion was used for the Allied Forces in Kosovo then $5 billion should be used for a new clean world energy source. (2 comments)

The commentor believes that DOE plans to develop more nuclear weapons at Y-12 and Los Alamos. The commentor adds that this causes unrest among other countries who feel that they need to acquire nuclear weapons to keep up with the U.S. threat, resulting in the continued arms race. The commentor also believes that the U.S. is a hypocrite because we ban others' acquisition of nuclear weapons and for those who already have weapons, they must submit to international inspections, while the U.S. continues to maintain its own nuclear capacity. (1 comment)

The commentor believes that nuclear weapons affect the security of the whole world. The commentor believes that if we open our facilities up to international inspections and if the U.S. starts the dismantlement of weapons and facilities, it may occur world-wide, allowing everyone to live in freedom and trust others all around the world. (1 comment)

The commentor states that the Y-12 SWEIS should benefit from the proposed $1 million DOE-ORO Oak Ridge Theta Pinch (ORTP) scoping study. (2 comments)

The commentor suggests the Y-12 SWEIS to include space at the east end of the plant for the ORTP, the world's first fusion demonstration plant. (2 comments)

The commentor believes that producing nuclear weapons at Y-12 is inviting enemies to attack that specific location. (1 comment)

The commentor points out that the Comprehensive Test Ban Treaty has been passed by the Holston Conference, as well as the United Methodist Church, condemning the production, use, or possession of nuclear

weapons and wishes an open forum to discuss its resolution. (1 comment)

Issue 18 – Issues Outside the Scope of the Y-12 SWEIS (continued)

The commentor states that too many people have already suffered from nuclear weapons production. The commentor suggests finding a "creative outlet" for the Y-12 employees to pursue in place of nuclear weapons production. (1 comment)

The commentor states that the operations at Y-12 affects everyone, not just Oak Ridge and Tennessee. In addition, the commentor strongly disagrees with the production of nuclear weapons. (1 comment)

The commentor states that it is a great time to act on treaties that have already been signed which continue to support the dismantlement of nuclear weapons. The commentor states that the Y-12 employees can work on cleaning up the radioactive waste and "reversing the damage already done". The commentor suggests that Oak Ridge should lead in disarming of nuclear weapons. (1 commentor)

The commentor strongly believes that nuclear weapons production must be eliminated and that we, as a whole nation, should start looking at alternative means to resolve conflicts. The commentor also believes that if the United States expects other countries to phase-out nuclear weapons production, we must also phase out our own production of nuclear weapons. (1 comment)

The commentor strongly disagrees with the production of nuclear weapons and believes that production should be stopped. During the SWEIS process, the commentor would like DOE to consider halting the production of nuclear weapons at Y-12. (1 comment)

The commentor points out that tritium in commercial light water reactors at TVA is a radioactive hydrogen. It readily becomes incorporated in water molecules and tritium itself is readily absorbed into the body. It is well absorbed by the skin and lungs and irradiates from the inside, out. The commentor also points out that the only possible conclusion is that tritium is a mutagen, teratogen, and carcinogen. (1 comment)

The commentor points out that 99% of tritium in the environment is man-made. (1 comment)

The commentor points out that since tritium has a short half-life, it does its damage over a short span of time. (1 comment)

The commentor points out that anything entering a man's body at any given time can affect the sperm he is producing because it is incorporated into the DNA strand; this can happen with tritium and thus, affect successful reproduction. (1 comment)

Issue 19 – Related NEPA Reviews

The commentor hopes that the Y-12 SWEIS will draw from the DOE studies that recognize the capabilities of Y-12 in supporting the national programs. (2 comments)

The commentor asks what kind of assurance can DOE provide that once the Y-12 SWEIS is issued, time will be allowed for study and analysis prior to making a decision. (1 comment)

The commentor believes that there is no basis for "revisiting" the SSM PEIS Record of Decision due to the fact that the SSM PEIS retained the storage of enriched uranium mission at the Y-12 site. The commentor suggests the SWEIS only address site-wide or project-specific documents to implement modernization at the Y-12 site. In addition, the commentor believes that the SSM PEIS and the S&D PEIS should be the basis for the Y-12 SWEIS. (1 comment)

The commentor points out that in previous EIS analyses it was found that the Y-12 mission is critical to manage and maintain the safety and stability of the existing nuclear materials inventory. The commentor hopes that the scope of the SWEIS will draw from conclusions made in reports supporting Y-12's national security role. (1 comment)

The commentor states that the "ORR Related NEPA Reviews" section of the NOI should include the April Final Programmatic EIS for UF6 and the Initial Plan. (1 comment)

The commentor believes that since the RODs for the SSM PEIS and S&D assigned the national security mission to Y-12 that discussions regarding other possible missions should not be considered in the SWEIS;

this issue is out of scope. (1 comment)

Issue 19 – Related NEPA Reviews (continued)

The commentor would like the SWEIS to use documents pertaining to Bear Creek Valley. (1 comment)

The commentor believes that DOE should use the information presented in the Stockpile Stewardship and Management PEIS, especially since the description of the site's base case is basically equivalent to the No Action Alternative description for the SWEIS. (1 comment)

The commentor notes that Y-12 has never had an environmental review as required by NEPA, and over the course of the past 50 years the site has contaminated the environment. (1 comment)

The commentor states that the ROD for the "Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapons Components" should be included as a related NEPA document. In addition, the commentor points out that this document discusses how depleted uranium components have been shipped to the Y-12 plant for processing and storage. The commentor believes that DOE should not continue to increase its inventory without proper funding to ensure safe storage of the material. (1 comment)

The commentor states that the U.S. Fish and Wildlife Service relies on DOE to provide the relevant documentation of proposed project subjects under NEPA, investigations under CERCLA or RCRA, and biological, physiochemical, geological, or other investigations undertaken at ORR which may have implications for DOI Trust Resources. (1 comment)

Issue 20 – Public Participation

The commentor requests that workshops pertaining to the Y-12 operations, the Y-12 SWEIS, and the proposed alternatives should be scheduled in order to keep the public informed. (1 comment)

The commentor expresses their fear of making a statement against nuclear weapons production during the public scoping meeting because of the intimidation factor provided by the number of Y-12 supporters present. (1 comment)